

3

Docket No. UF-258CXC1
Serial No. 09/925,336Remarks

Claims 1, 13, 20 and 21 are pending in the subject application. By this Amendment, the applicants have amended claims 1 and 21 and have canceled claim 20. Accordingly, claims 1, 13 and 21 are before the Examiner for consideration. In view of the claim amendments as well as the remarks set forth below, favorable consideration of the claims now presented is earnestly solicited.

Claims 1 and 13 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Momol *et al.* (Phytopathology 89(6):S54, June 1991) in view of Maeda *et al.* (U.S. Patent No. 4,780,471). The applicants respectfully traverse this grounds for rejection because the cited references, alone or in combination, do not disclose or suggest the current invention.

The subject invention is a method for controlling a very hard to control bacterial disease of tomato plants. To control this disease, the current applicants have invented a specific composition that achieves excellent control of tomato wilt, in the field, without phytotoxicity. To achieve this unexpected result, the composition has a unique blend of thymol, ethyl alcohol, and detergent.

Initially, the applicants respectfully submit that the Momol *et al.* and Maeda *et al.* references cannot properly be combined in making an obviousness rejection of the current invention. The standards for combining references were articulated by the Federal Circuit as follows:

[o]bviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching or suggestion supporting the combination. Under section 103, teachings of references can be combined *only* if there is some suggestion or incentive to do so.

ACS Hospital Sys., Inc. v. Montefiore Hospital, 732 F.2d 1572, 1577 (Fed. Cir. 1984). (Emphasis in original)

Momol *et al.* merely disclose thymol as an effective treatment for *in vitro* experimentation in controlled conditions. There is no suggestion in the Momol *et al.* reference to combine thymol with any additional components for application to a field-grown tomato plant.

Maeda *et al.* provide no teaching whatsoever regarding the use of thymol. Rather, Maeda *et al.* disclose compositions for fungicides comprising primarily azole derivatives. Thus, there is no readily apparent reason to combine these references.

JASH-RESP\UF\UF-258C1XC1-F-amend.doc\DNB\la

The Office Action states:

[The Mazda *et al.* patent] specifically uses ethyl alcohol and detergents in combination with fungicides that are applied to plant for the control of pathogens. Thus, [the Maeda *et al.* patent] shows that it was known in the art at the time of the invention to use ethyl alcohol and detergents in combination with insecticides. Momol is also applying an insecticidal substance to plants to control pathogens. Thus, a person of ordinary skill in the art would recognize that ethyl alcohol and detergents are well known carriers for insecticides that are used on plants. (emphasis added)

This reasoning is quite difficult for the applicants to follow because the Maeda *et al.* patent does not appear to pertain to insecticides, the Momol *et al.* abstract does not mention insecticides, and the current invention has nothing to do with insecticides. The applicants respectfully request clarification.

By way of background, it is known in the art that a bactericide destroys and/or controls bacteria or single-celled organisms. The methods of the present application are specifically directed to controlling *Ralstonia*, a Gram-negative, plant pathogenic bacterium responsible for causing the disease bacterial wilt.

In contrast, an insecticide is directed to controlling and/or destroying small invertebrate animals usually having segmented bodies and which primarily belong to the class insecta. These animals usually have six legs and are optionally winged. Examples include beetles, bugs, bees, and flies. Some "insecticides" are also directed to allied classes of arthropods whose members are wingless and usually have more than six legs, as for example, spiders, mites, ticks, centipedes, and wood lice.

Furthermore, Maeda *et al.* disclose a fungicide comprised of an active azole derivative that can be combined with inactive carriers, for example, ethyl alcohol and detergent. A fungicide is directed to destroying and/or controlling non-chlorophyll-bearing thallophytes.

As discussed above, the bactericide of the claimed invention would not be expected to have anything in common with insecticides or fungicides, which are directed to very different classes of life forms. The complexity of these various types of organisms is so great, that a composition that can control bacteria may not necessarily control a fungus and vice versa. Therefore, it is certainly

not obvious to those skilled in the art to use the inert carriers of a fungicide as active components of a bactericide.

As the Office Action statement pertaining to "insecticides" (quoted above) appears to provide the only basis for combining the cited references, the applicants respectfully submit that no reasonable basis for combining these references has been articulated. Thus, reconsideration of this rejection is requested.

Furthermore, even if the references are properly combinable, the combination of these references does not suggest the claimed invention. The Momol *et al.* reference teaches the use of thymol as applied to *in vitro* tomato plants; whereas Maeda *et al.* teach a composition of a fungicide.

A finding of obviousness is proper only when the prior art contains a suggestion or teaching of the claimed invention. Here, neither of the references contain a suggestion of the applicants' unique method. It is only the applicant's disclosure that provides such a teaching, and the applicants' disclosure cannot be used to reconstruct the prior art for a rejection under 35 U.S.C. §103. This was specifically recognized by the CCPA in *In re Spunoble*, 56 CCPA 823, 160 USPQ 237, 243 (1969):

The Court must be ever alert not to read obviousness into an invention on the basis of the applicant's own statements; that is we must review the prior art without reading into that art appellant's teachings. *In re Murray*, 46 CCPA 905, 268 F.2d 226, 112 USPQ 364 (1959); *In re Sprock*, 49 CCPA 1039, 301 F.2d 686, 133 USPQ 360 (1962). The issue, then, is whether the teachings of the prior art would, in and of themselves and without the benefits of appellant's disclosure, make the invention as a whole, obvious. *In re Leonor*, 55 CCPA 1198, 395 F.2d 801, 158 USPQ 20 (1968). (Emphasis in original)

The mere fact that the purported prior art could have been modified or applied in a manner to yield applicant's invention would not have made the modification or application obvious unless the prior art suggested the desirability of the modification. *In re Gordon*, 221 USPQ 1125, 1127 (Fed. Cir. 1984). Moreover, as expressed by the CAFC, to support a §103 rejection, "[b]oth the suggestion and the expectation of success must be founded in the prior art" *In re Dow Chemical Co.*, 5 USPQ2d1529, 1531 (Fed. Cir. 1988).

Please note that the use of ethyl alcohol and detergents in Maeda *et al.* is solely for carrier purposes. The components of the composition of the subject invention are all necessary active ingredients to achieve effective control of *Ralstonia*. The presence of ethyl alcohol and detergent enhance the efficacy of the thymol, which results in a lower amount of thymol required to control the bacteria. In fact, without the addition of the ethyl alcohol and detergent components, a bactericide consisting solely of thymol is phytotoxic to plants. It is the addition of these two components in combination with thymol that produces a bactericide that is toxic to *Ralstonia* but not phytotoxic to the tomato plant.

The Office Action states:

[a] person of ordinary skill in the art would be able to determine without undue experimentation if the method taught by Momol on greenhouse tomatoes would be successful in the field.

Whether or not "undue experimentation" is needed is not relevant to the question of obviousness. Rather, obviousness is based upon whether the claimed invention is, itself, obvious. From the cited references, at most, it may be obvious to try to discover whether some thymol composition could control bacterial wilt on field tomatoes. However, the "obvious to try" standard has long been held to be an inappropriate basis for a §103 rejection. See, for example, *In re Antonie*, 195 USPQ 6 (CCPA 1977); *In re Dow Chemical Co.*, 5 USPQ 2d 1529 (CAFC 1988). Therefore, the results of the applicants' empirical research are not rendered obvious by the mere availability of general methods determining whether a composition is effective.

The applicants respectfully submit that it is not obvious to use specific amounts of the inactive carriers of the fungicide disclosed by Maeda *et al.* as active components in the bactericide used in the methods of the claimed invention. Therefore, the applicants respectfully request reconsideration and withdrawal of the rejection under 35 U.S.C. §103.

In view of the foregoing remarks and the amendment above, the applicants believe that the currently pending claims are in condition for allowance, and such action is respectfully requested.

J:\SH-RESP\UF\UF-258C1XC1-F-amend.doc\DNB\la

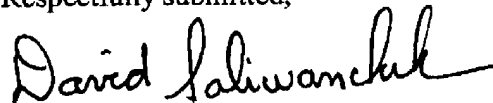
7

Docket No. UF-258CXC1
Serial No. 09/925,336

The Commissioner is hereby authorized to charge any fees under 37 CFR §§1.16 or 1.17 as required by this paper to Deposit Account No. 19-0065.

The applicants also invite the Examiner to call the undersigned if clarification is needed on any of this response, or if the Examiner believes a telephone interview would expedite the prosecution of the subject application to completion.

Respectfully submitted,



David R. Saliwanchik

Patent Attorney

Registration No. 31,794

Phone: 352-375-8100

Fax No.: 352-372-5800

Address: 2421 N.W. 41st Street, Suite A-1
Gainesville, FL 32606-6669

DRS/la

JASH-RESP\UFUF-258C1XC1-F-amend.doc\DNB/la